CLAIMS

1. A signal discriminator which is formed of a soft magnetic material to form a closed magnetic path, is attached on a cable such that the cable passes through the closed magnetic path, and which passes an electric signal flowing through the cable and blocks a noise signal flowing through the cable,
characterized in that the soft magnetic material has its complex relative permittivity varying with frequency, and a real part of the complex relative permittivity is large in a frequency domain lower than a frequency of the electric signal flowing through the cable and small in a frequency domain higher than the frequency of the electric signal.

2. A signal discriminator according to Claim 1, wherein the real part of the complex relative permittivity of the soft magnetic material ranges from 1,000 up to 20,000 at 1 kHz, and from 50 downward at 1 MHz.

3. A signal discriminator according to Claim 1 or 2, wherein the soft magnetic material is Mn-Zn ferrite having a basic component composition comprising 44.0 to 50.0 (50.0 excluded) mol % Fe_2O_3, 4.0 to 26.5 mol % ZnO, 0.1 to 8.0 mol % at least one of TiO_2 and SnO_2, and the rest consisting of MnO.

4. A signal discriminator according to Claim 1 or 2, wherein the soft magnetic material is Mn-Zn ferrite having a basic component composition comprising 44.0 to 50.0 (50.0 excluded) mol % Fe_2O_3, 4.0 to 26.5 mol % ZnO, 0.1 to 8.0 mol % at least one of TiO_2 and SnO_2, 0.1 to 16.0 mol % CuO, and the rest consisting of MnO.

5. A signal discriminator according to any one of Claims 1 to 4, wherein the soft magnetic material has a resistivity of 150 Ωm or higher.